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09/661,164	09/13/2000	Dan Kikinis	007287.00043	7516
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			EXAMINER USTARIS, JOSEPH G	
			ART UNIT 2623	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<p align="center">Office Action Summary</p>	Application No. 09/661,164	Applicant(s) KIKINIS ET AL.	
	Examiner Joseph G. Ustaris	Art Unit 2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 December 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 and 36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-34 and 36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This action is in response to the amendment dated December 03, 2007 in application 09/661,164.

The 35 U.S.C. 112, first paragraph rejection of claims 1-34 and 36 is now withdrawn in view of the amendments.

Claim Objections

2. Claims 7, 30, 31, 34, and 36 are objected to under 37 CFR 1.75.

Claim 7 recites the limitation "the second media" in line 3. There is insufficient antecedent basis for this limitation in the claim. The examiner recommends --the separate second media-- in order to be consistent with the language of previous claims.

Claim 30 recites the limitation "the second media" in line 2. There is insufficient antecedent basis for this limitation in the claim. The examiner recommends --the separate second media-- in order to be consistent with the language of previous claims.

Claim 34 recites the limitation "the second media" in line 2. There is insufficient antecedent basis for this limitation in the claim. The examiner recommends --the separate second media-- in order to be consistent with the language of previous claims.

Claim 36 recites the limitation "the second media" in page 8 line 1. There is insufficient antecedent basis for this limitation in the claim. The examiner recommends --the separate second media-- in order to be consistent with the language of previous claims.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

Claims that recite nothing but the physical characteristics of a form of energy, such as a frequency, voltage, or the strength of a magnetic field, define energy or magnetism, per se, and as such are nonstatutory natural phenomena. O'Reilly, 56 U.S. (15 How.) at 112-14. Moreover, it does not appear that a claim reciting a signal encoded with functional descriptive material falls within any of the categories of patentable subject matter set forth in Sec. 101.

... a signal does not fall within one of the four statutory classes of Sec. 101.

... signal claims are ineligible for patent protection because they do not fall within any of the four statutory classes of Sec. 101.

4. Claim(s) 26-34 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows. Claim 26 is drawn to functional descriptive material recorded on a machine-readable storage medium. Normally, the claim would be statutory. However, the specification, at page 8 defines the claimed computer readable medium as encompassing statutory media such as a "ROM", "hard drive", "optical drive", etc, as well as ***non-statutory*** subject matter such as a "signal".

A "signal" embodying functional descriptive material is neither a process nor a product (i.e., a tangible "thing") and therefore does not fall within one of the four statutory classes of § 101. Rather, "signal" is a form of energy, in the absence of any physical structure or tangible material.

Because the full scope of the claim as properly read in light of the disclosure encompasses non-statutory subject matter, the claim as a whole is non-statutory. The

examiner suggests amending the claim to include the disclosed tangible computer readable media, while at the same time excluding the intangible media such as signals, carrier waves, etc. Any amendment to the claim should be commensurate with its corresponding disclosure.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-7, 9-16, 18, 19, 26-31, 33, and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reynolds et al. (US20010037500A1) in view of Kaiser et al. (US006615408B1).

Regarding claim 1, Reynolds et al. (Reynolds) discloses a system (See Fig. 1) comprising a receiver (See Fig. 1, 100) configured to:

receive a first broadcast stream (See Fig. 1, 110; paragraph 0025), a portion of the first broadcast stream (See paragraph 0026; meta data component 114) having a first priority indicator (See paragraphs 0034-0036; wherein these triggers are found in the meta data component 114); and

receive a separate second media (See Figs. 1 and 2, 142) having a second priority indicator (See paragraph 0037; the assigned priority value of the local meta data 142), the separate second media to be played during the portion of the first broadcast

stream (See Fig. 2; paragraphs 0030-0032; the local meta data is played during the portion that the extracted meta data occupied within the first broadcast stream);

determine whether the first priority indicator is greater than the second priority indicator (See paragraphs 0033-0037; priority level); and

delay the insertion of the separate second media in response to determining that the first priority indicator is greater than the second priority indicator (See paragraphs 0033-0037; if the first priority indicator/level is greater than the second priority indicator/level then insertion is not allowed for that trigger). It is also noted that if another trigger passes through with a priority indicator/level that is less than the "second priority indicator/level" then insertion is allowed (See paragraphs 0033-0037).

However, Reynolds does not explicitly disclose another portion of the first broadcast stream having a third priority indicator.

Kaiser et al. (Kaiser) discloses a similar insertion/triggering system. Kaiser discloses that a broadcast stream has multiple portions having multiple priority indicators/triggers or "another portion of the first broadcast stream having a third priority indicator" (See Fig. 2; col. 6 lines 9-45). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the broadcast stream disclosed by Reynolds to have multiple portions having multiple priority indicators/triggers or "another portion of the first broadcast stream having a third priority indicator", as taught by Kaiser, in order to increase flexibility of where insertion will occur within the stream (See col. 2 lines 23-32). Therefore, the system disclosed by Reynolds in view of Kaiser will have multiple triggers pass through. Insertion will not occur (e.g.

delay) when the first priority indicator is greater than the second priority indicator and insertion will occur when the following (e.g. third) priority indicator is less than the second priority indicator.

Regarding claim 2, wherein the first and second priority indicators comprise at least one of a number, a letter, and a symbol (See Reynolds paragraph 0034-0037).

Regarding claim 3, wherein the separate second media and the first broadcast stream are the same media (See Reynolds Fig. 1; they are both electrical signals, digital data, etc...).

Regarding claim 4, wherein the separate second media and the first broadcast stream are different media (See Reynolds paragraphs 0025-0026; Channel TV data vs. TV program).

Regarding claim 5, wherein an event triggers an insertion of the separate second media into the first broadcast stream (See Reynolds paragraph 0032-0037; the triggers cause the insertion).

Regarding claim 6, Reynolds in view of Kaiser does not explicitly disclose that the event includes an arrival of an e-mail.

Official Notice is taken that it is well known in the art to notify the user of an arrival of an e-mail. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system disclosed by Reynolds in view of Kaiser to notify the user of an arrival of an e-mail in order to increase the capabilities of the system thereby providing a means of notifying the user of various content.

Regarding claim 7, wherein a signal configured to change the first priority indicator is programmed by a time mark, the time mark synchronizing the second media insertion with the first broadcast stream (See Reynolds paragraphs 0041-0043; where inherently Reynolds must have a sync signal (time mark) within the broadcast stream so that the system will be able to synchronize the insertion of the second media with the broadcast stream).

Regarding claim 9, wherein the first and second priority indicators are user specified (See Reynolds Fig. 1; paragraph 0037; the local affiliate operator who sets the priorities of the system is the "user").

Regarding claim 10, wherein the receiver is part of a television system (See Fig. 1) of radio system.

Claim 11 contains the limitations of claim 1 (wherein the system performs the method) and is analyzed as previously discussed with respect to that claim.

Claim 12 contains the limitations of claims 2 and 11 and is analyzed as previously discussed with respect to those claims.

Claim 13 contains the limitations of claims 3 and 11 and is analyzed as previously discussed with respect to those claims.

Claim 14 contains the limitations of claims 4 and 11 and is analyzed as previously discussed with respect to those claims.

Claim 15 contains the limitations of claims 5 and 11 and is analyzed as previously discussed with respect to those claims.

Claim 16 contains the limitations of claims 6 and 15 and is analyzed as previously discussed with respect to those claims.

Regarding claim 18, Reynolds in view of Kaiser further discloses wherein a plurality of priority indicators are each associated with a different portion of the first broadcast stream based on a geographic area (See Reynolds paragraphs 0028 and 0038 and Kaiser Fig. 2; col. 6 lines 9-45).

Claim 19 contains the limitations of claims 7 and 11 and is analyzed as previously discussed with respect to those claims.

Claim 26 contains the limitations of claim 11 (wherein the system disclosed by Reynolds inherently has a machine-readable storage medium tangibly embodying a sequence of instructions executable by the system in order to successfully perform its functions) and is analyzed as previously discussed with respect to that claim.

Claim 27 contains the limitations of claims 12 and 26 and is analyzed as previously discussed with respect to those claims.

Claim 28 contains the limitations of claims 13 and 26 and is analyzed as previously discussed with respect to those claims.

Claim 29 contains the limitations of claims 14 and 26 and is analyzed as previously discussed with respect to those claims.

Claim 30 contains the limitations of claims 15 and 26 and is analyzed as previously discussed with respect to those claims.

Claim 31 contains the limitations of claims 16 and 30 and is analyzed as previously discussed with respect to those claims.

Claim 33 contains the limitations of claims 18 and 26 and is analyzed as previously discussed with respect to those claims.

Claim 34 contains the limitations of claims 9 and 26 and is analyzed as previously discussed with respect to those claims.

7. Claims 20-25 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reynolds et al. (US20010037500A1) in view of Zigmond et al. (US006698020B1) and Carr (US007051357B2).

Regarding claim 20, Reynolds discloses a system (See Fig. 1) comprising:
a receiver (See Fig. 1, 100), the receiver configured to receive a first broadcast stream (See Fig. 1, 110; paragraph 0025) associated with a first priority indicator (See paragraphs 0034-0036; wherein these triggers are found in the meta data component 114) over a first network (See Fig. 1, satellite link); and
the receiver receiving a separate second media (See Figs. 1 and 2, 142) associated with a second priority indicator (See paragraph 0037; the assigned priority value of the local meta data 142), the receiver configured to insert the second media or an indication of the second media into an audio or video reproduction of the first broadcast stream based on a comparison of the first priority indicator and the second priority indicator (See paragraphs 0033-0037) such that no content of the first broadcast stream is lost (See paragraphs 0018-0043; broadcast stream is not lost, it is merged with the second media and transmitted).

However, Reynolds does not explicitly disclose that the receiver is in a set top box and that the first priority indicator is received through a second network different from the first network.

Zigmond et al. (Zigmond) discloses a similar insertion/triggering system. Zigmond discloses that the receiver is in a set top box (See Fig. 3; col. 7 lines 42-49, WebTV Box). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the receiver disclosed by Reynolds to be in a set top box, as taught by Zigmond, in order to allow the receiver to take on an easy form factor thereby allowing the receiver to easily be placed within a household (See col. 7 lines 37-49).

Carr discloses a similar insertion/triggering system. Carr discloses that the first priority indicator (e.g. enhancement data such as triggers) is received through a second network (See Fig. 1a, 20; col. 2 line 61-62, Internet) different from the first network (See Fig. 1a, 22; col. 2 line 43-44, satellite) (See col. 4 line 59 – col. 5 line 10). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system disclosed by Reynolds to include a second network different from the first network to send the first priority indicator, as taught by Carr, in order to provide greater flexibility and/or to alleviate bandwidth concerns of the first network (See col. 4 lines 59-60).

Claim 21 contains the limitations of claims 2 and 20 and is analyzed as previously discussed with respect to those claims.

Claim 22 contains the limitations of claims 3 and 20 and is analyzed as previously discussed with respect to those claims.

Claim 23 contains the limitations of claims 4 and 20 and is analyzed as previously discussed with respect to those claims.

Claim 24 contains the limitations of claims 5 and 20 and is analyzed as previously discussed with respect to those claims.

Regarding claim 25, Reynolds in view of Zigmond and Carr does not explicitly disclose that the event includes an arrival of an e-mail.

Official Notice is taken that it is well known in the art to notify the user of an arrival of an e-mail. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system disclosed by Reynolds in view of Zigmond and Carr to notify the user of an arrival of an e-mail in order to increase the capabilities of the system thereby providing a means of notifying the user of various content.

Regarding claim 36, Reynolds discloses a method of inserting media into a broadcast stream (See Fig. 1), the method comprising:

transmitting, over a first network (See Fig. 1, satellite link), a first broadcast stream (See Fig. 1, 110; paragraph 0025) including program (e.g. advertisement) and an associated first priority indicator (See paragraphs 0034-0036; wherein these triggers are found in the meta data component 114);

a separate second media (See Figs. 1 and 2, 142) associated with a second priority indicator (See paragraph 0037; the assigned priority value of the local meta data 142); and

automatically inserting the second media or an indication of the second media based on a comparison of said associated priority indicators of said plurality of programs in said first broadcast stream and said second media priority indicator (See paragraphs 0033-0037);

wherein said second media is presented such that no content of the first broadcast stream is lost (See paragraphs 0018-0043; broadcast stream is not lost, it is merged with the second media and transmitted).

However, Reynolds does not disclose explicitly disclose that the broadcast stream includes a plurality of programs, transmitting the separate second media over the first network, and wherein the first and second priority indicators are transmitted separately over a second network different from the first network.

Zigmond et al. (Zigmond) discloses a similar insertion/triggering system. Zigmond discloses that the broadcast stream includes a plurality of programs (e.g. plurality of ads) (See Fig. 2). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the broadcast stream disclosed by Reynolds to include a plurality of programs, as taught by Zigmond, in order to increase the amount of programs (advertisements) shown to viewers.

Carr discloses a similar insertion/triggering system. Carr discloses that the separate second media (e.g. enhancement data) can be transported over the first

network (e.g. the same network at the video) (See col. 4 lines 35-37). Carr also discloses that the first and second priority indicator (e.g. enhancement data such as triggers) are transmitted separately over a second network (See Fig. 1a, 20; col. 2 line 61-62, Internet) different from the first network (See Fig. 1a, 22; col. 2 line 43-44, satellite) (See col. 4 line 59 – col. 5 line 10). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system disclosed by Reynolds to transmit the separate second media over the first network and to include a second network different from the first network to send the first and second priority indicators, as taught by Carr, in order to provide greater flexibility and/or to alleviate bandwidth concerns of the first network (See col. 4 lines 59-60).

8. Claims 8, 17, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reynolds et al. (US20010037500A1) in view of Kaiser et al. (US006615408B1) as applied to claims 1, 11, and 26 above, and further in view of Bullock et al. (US 5,070,404).

Regarding claim 8, Reynolds in view of Kaiser does not disclose that the priority indicators are associated with the first broadcast stream using at least one of a pilot tone and a watermark.

Bullock discloses the use of cue code wherein each cue code comprises four DTMF tones as indicator (Col. 6, lines 43-Col. 7, lines 25). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Reynolds in view of Kaiser with Bullock so to take the advantage of the

uniqueness of each cue code for determining the presence of the stored data having an identifier corresponding to the cue signal and for providing an indication to the user of the presence of the stored data (Col. 2, lines 1-6).

Claim 17 contains the limitations of claims 8 and 11 and is analyzed as previously discussed with respect to those claims. Furthermore, Reynolds in view of Kaiser discloses a plurality of priority indicators are each associated with a different portion of the first broadcast stream (See Reynolds paragraphs 0028 and 0038 and Kaiser Fig. 2; col. 6 lines 9-45).

Claim 32 contains the limitations of claims 17 and 26 and is analyzed as previously discussed with respect to those claims.

Response to Arguments

9. Applicant's arguments with respect to claims 1-34 and 36 have been considered but are moot in view of the new ground(s) of rejection.

Applicant is reminded that although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph G. Ustaris whose telephone number is 571-272-7383. The examiner can normally be reached on M-F 7:30-5 PM; Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher S. Kelley can be reached on 571-272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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